



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

March 1, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: Mac's Convenience Stores / 019-18388-05191

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

- (1) the date the document is delivered to the Office of Environmental Adjudication (OEA);
- (2) the date of the postmark on the envelope containing the document, if the document is mailed to OEA by U.S. mail; or
- (3) The date on which the document is deposited with a private carrier, as shown by receipt issued by the carrier, if the document is sent to the OEA by private carrier.

The petition must include facts demonstrating that you are either the applicant, a person aggrieved or adversely affected by the decision or otherwise entitled to review by law. Please identify the permit, decision, or other order for which you seek review by permit number, name of the applicant, location, date of this notice and all of the following:

- (1) the name and address of the person making the request;
- (2) the interest of the person making the request;
- (3) identification of any persons represented by the person making the request;
- (4) the reasons, with particularity, for the request;
- (5) the issues, with particularity, proposed for considerations at any hearing; and
- (6) identification of the terms and conditions which, in the judgment of the person making the request, would be appropriate in the case in question to satisfy the requirements of the law governing documents of the type issued by the Commissioner.

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178. Callers from within Indiana may call toll-free at 1-800-451-6027, ext. 3-0178.

Enclosures
FN-REGIS.dot 9/16/03

March 1, 2004

Mr. Matt McClure
Mac's Convenience Stores, LLC
315 Commons Mall
Columbus, Indiana 47201

Re: Registered Construction and Operation Status,
019-18388-05191

Dear Mr. McClure:

The application from Mac's Convenience Stores, LLC received on January 13, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following portable soil and groundwater remedial system, located at Site 1- 1620 Charlestown-New Albany Pike; Site 2 - Lot 18 of Waverly Subdivision; Site 3 - 3810 Hamburg Pike; and Site 4 - 3821 Hamburg Pike in Jeffersonville, Indiana will remain a registered source:

New Emission Units and Pollution Control Equipment

- (a) One (1) high vacuum dual phase extraction (HVDPE) system, identified as remedial system #3, with 5-horsepower (hp) liquid ring pump, one (1) air-water separator, one (1) ½ hp transfer pump, and two (2) 300 pound liquid granular activated carbon vessels to be mounted in a mobile trailer unit. This system will be installed at Site 2.

Permitted Emission Units and Pollution Control Equipment

- (a) One (1) portable high vacuum extraction system, identified as remedial system #1, with a maximum extraction capacity of 3.46 pounds of volatile organic compounds (VOCs) per hour, using catalytic oxidizer as control, using a low explosive level detection monitor to monitor the VOC emissions, and exhausting to stack 1.
- (b) One (1) commercial high vacuum extraction system, identified as remedial system #2, with a maximum extraction capacity of 0.7946 pounds of volatile organic compounds (VOCs) per hour, using a Foxboro flame ionization detector and a Kurtz air velocity meter to monitor VOC emissions, and exhausting to stack 2.

The following conditions shall be applicable:

1. Any change or modification which may increase the potential to emit single HAP to 10 tons per year or more, or VOCs or combination of HAPs to 25 tons per year or more shall require prior approval of the IDEM, OAQ.
2. Pursuant to 326 IAC 5-1-2 (Opacity Limitations) except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute

averaging period as determined in 326 IAC 5-1-4.

- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
3. Pursuant to 326 IAC 2-6 (Emission Reporting), the Permittee must annually submit an emission statement for the source. This statement must be received by April 15 of each year and must comply with the minimum requirements specified in 326 IAC 2-6-4. The annual statement must be submitted to:

Indiana Department of Environmental Management
Data Support Section, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

The annual emission statement covers the twelve (12) consecutive month time period starting December 1 and ending November 30.

This registration is a revised registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

APD

cc: File - Clark County
Clark County Health Department
Air Compliance - Ray Schick
Permit Tracking

Compliance Data Section

Mac's Convenience Stores, LLC
Jeffersonville, Indiana
Permit Reviewer: Aida De Guzman

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Registration 019-18388-05191

Registration

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	Mac's Convenience Stores, LLC
Address:	315 Commons Mall
City:	Columbus, Indiana
Authorized individual:	Matt McClure
Phone #:	(812) 314-2028
Registration #:	019-18388-05191

I hereby certify that Mac's Convenience Stores, LLC. is still in operation and is in compliance with the requirements of Registration 019-18388-0519.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Revised Registration

Source Background and Description

Source Name: Mac's Convenience Stores, LLC
Source Location: 1620 Charlestown-New Albany Pike, Jeffersonville, Indiana
County: Clark
SIC Code: 5541
Operation Permit No.: 019-18388-05191
Permit Reviewer: Aida De Guzman

The Office of Air Quality (OAQ) has reviewed an application from Mac's Convenience Stores, LLC relating to the re-registration of the following new and existing equipment used in the soil and groundwater remediation:

New Emission Units and Pollution Control Equipment

The source consists of the following new emission units and pollution control devices:

- (a) One (1) high vacuum dual phase extraction (HVDPE) system, identified as remedial system #3, with 5-horsepower (hp) liquid ring pump, one (1) air-water separator, one (1) ½ hp transfer pump, and two (2) 300 pound liquid granular activated carbon vessels to be mounted in a mobile trailer unit. This system will be installed at Site 2.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) portable high vacuum extraction system, identified as remedial system #1, with a maximum extraction capacity of 3.46 pounds of volatile organic compounds (VOCs) per hour, using catalytic oxidizer as control, using a low explosive level detection monitor to monitor the VOC emissions, and exhausting to stack 1.
- (b) One (1) commercial high vacuum extraction system, identified as remedial system #2, with a maximum extraction capacity of 0.7946 pounds of volatile organic compounds (VOCs) per hour, using a Foxboro flame ionization detector and a Kurtz air velocity meter to monitor VOC emissions, and exhausting to stack 2.

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following:

- (a) Registration R 019-10455-05191, issued on January 13, 1999; and

(b) Registration R 019-11678-05191, issued on March 22, 2000.

All conditions from previous approvals were incorporated into this permit.

Source Definition

The remediation will take place at four (4) sites in Jeffersonville, Indiana:

- (a) Site 1 is located at 1620 Charlestown-New Albany Pike;
- (b) Site 2 is located at Lot 18 of Waverly Subdivision;
- (c) Site 3 is located at 3810 Hamburg Pike;
- (d) Site 4 is located at 3821 Hamburg Pike.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (°F)
1	Portable Vacuum System	12.5	0.272	190	500
2	Commercial Vacuum System	9.5	0.218	190	500

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the construction and operation be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on January 13, 2004.

Emission Calculations

(a) New Remedial System:

- (1) HVDPE system, identified as remedial system #3:
Based on data obtained from the most recent HVDPE operation at the site from February 28, 2003 through June 26, 2003.

Maximum VOC discharged - 0.016 pound/hour

VOC Emissions = 0.016 lbs/hr * 8760 hrs/yr * ton/2000 lb
= 0.07 ton/year

(b) Existing Emission Units

(a) Portable high vacuum extraction system, identified as remedial system #1:

Highest measured hourly VOC emission rate from the portable vacuum truck - 3.46

lbs VOC/hr

$$\begin{aligned} \text{VOC Emissions} &= 3.46 \text{ lbs/hr} * 8760 \text{ hrs/yr} * \text{ton}/2000 \text{ lbs} \\ &= 15.15 \text{ tons/year} \end{aligned}$$

(b) Commercial high vacuum extraction system, identified as remedial system #2:

Highest measured monthly VOC emission rate from the commercial vacuum truck

$$- 1319.8 \text{ lbs VOC}/1837.4 \text{ hrs} = 0.7946 \text{ lbs VOC/hr}$$

$$\begin{aligned} \text{VOC Emissions} &= 0.7946 \text{ lbs VOC/hr} * 8760 \text{ hrs/yr} * \\ &\text{ton}/2000 \text{ lbs} \\ &= 3.48 \text{ tons VOC/yr} \end{aligned}$$

$$\begin{aligned} \text{Total potential to emit (PTE) VOC} &= (0.07 + 15.15 + 3.48) \text{ tons VOC/yr} \\ &= 18.7 \text{ tons VOC/yr} \end{aligned}$$

HAP EMISSIONS:

$$\begin{aligned} \text{Maximum hourly emission rate of Benzene} &- 0.1 \text{ lbs/hr} \\ \text{Benzene Emissions} &= 0.1 \text{ lbs/hr} * 8760 \text{ hrs/yr} * \text{ton}/2000 \text{ lbs} \\ &= 0.44 \text{ tons/yr} \end{aligned}$$

$$\begin{aligned} \text{Maximum hourly emission rate of MTBE} &- 0.24 \text{ lbs/hr} \\ \text{MTBE Emissions} &= 0.24 \text{ lbs/hr} * 8760 \text{ hrs/yr} * \text{ton}/2000 \text{ lbs} \\ &= 1.05 \text{ tons/yr} \end{aligned}$$

$$\begin{aligned} \text{Maximum hourly emission rate of Ethyl Benzene} &- 0.07 \text{ lbs/hr} \\ \text{Ethyl Benzene Emissions} &= 0.24 \text{ lbs/hr} * 8760 \text{ hrs/yr} * \text{ton}/2000 \text{ lbs} \\ &= 1.05 \text{ tons/yr} \end{aligned}$$

$$\begin{aligned} \text{Maximum hourly emission rate of Toluene} &= 0.17 \text{ lbs/hr} \\ \text{Toluene Emissions} &= 0.17 \text{ lbs/hr} * 8760 \text{ hrs/yr} * \text{ton}/2000 \text{ lbs} \\ &= 0.75 \text{ tons/yr} \end{aligned}$$

$$\begin{aligned} \text{Maximum hourly emission rate of O-Xylene} &= 0.08 \text{ lbs/hr} \\ \text{O-Xylene Emissions} &= 0.08 \text{ lbs/hr} * 8760 \text{ hrs/yr} * \text{ton}/2000 \text{ lbs} \\ &= 0.35 \text{ tons /yr} \end{aligned}$$

$$\begin{aligned} \text{Maximum hourly emission rate of M-Xylene} &= 0.08 \text{ lbs/hr} \\ \text{M-Xylene Emissions} &= 0.08 \text{ lbs/hr} * 8760 \text{ hrs/yr} * \text{ton}/2000 \text{ lbs} \\ &= 0.35 \text{ tons/yr} \end{aligned}$$

$$\begin{aligned} \text{Maximum hourly emission rate of P-Xylene} &= 0.08 \text{ lbs/hr} \\ \text{P-Xylene Emissions} &= 0.08 \text{ lbs/hr} * 8760 \text{ hrs/yr} * \text{ton}/2000 \text{ lbs} \\ &= 0.35 \text{ tons/yr} \end{aligned}$$

Worst Single HAP	=	1.05 tons/year MTBE or Ethyl Benzene
Total HAPs	=	0.44 + 1.05 + 1.05 + 0.75 + 0.35 + 0.35
	=	4.34 tons HAPs/yr

Combined Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emissions unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, the department, or the appropriate local air pollution control agency.”

Pollutant	Potential To Emit (tons/year)
PM	0.0
PM-10	0.0
SO ₂	0.0
VOC	18.70
CO	0.0
NO _x	0.0

HAP's	Potential To Emit (tons/year)
Benzene	0.44
MTBE	1.05
Ethyl Benzene	1.05
Toluene	0.75
O-Xylene	0.35
M-Xylene	0.35
P-Xylene	0.35
TOTAL	4.34

- (a) The potential to emit (as defined in 326 IAC 2-5.5-1) of volatile organic compounds (VOCs) is less than twenty-five (25) tons per year and equal to or greater than ten (10) tons per year. Therefore, the source will remain a registered source, pursuant to the provisions of 326 IAC 2-5.5-1.

County Attainment Status

The source is located in Clark County.

Pollutant	Status
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	not determined

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Clark County has been redesignated as an attainment for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (b) Clark County has been classified as attainment or unclassifiable for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Portable Source

- (a) Initial Location
This is a portable source and its initial location is 3810 Hamburg Pike, Jeffersonville, Indiana.
- (b) PSD and Emission Offset Requirements
The emissions from this portable source were reviewed under the requirements of the Prevention of Significant Deterioration (PSD), 326 IAC 2-2, 40 CFR 52.21, and Emission Offset, 326 IAC 2-3.

Source Status

Existing re-registered Source PSD, Part 70 or FESOP Definition (emissions after controls, based on 8,760 hours of operation per year at rated capacity and/ or as otherwise limited):

Pollutant	Emissions (ton/yr)
PM	0.0
PM10	0.0
SO ₂	0.0
VOC	18.70
CO	0.0
NO _x	0.0

- (a) This existing re-registered source is not a major stationary source because no attainment regulated pollutant is emitted at a rate of 250 tons per year or more, and it is not in one of the 28 listed source categories.
- (b) These emissions were based on soil vapor and groundwater analysis of the remediation site.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing re-registered source, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source.

State Rule Applicability - Entire Source

- (a) 326 IAC 2-6 (Emission Reporting)
This source is subject to 326 IAC 2-6 (Emission Reporting), because it has the potential to emit more than ten (10) tons per year of volatile organic compounds (VOCs) and is located in Clark County. Pursuant to this rule, the owner/operator of the source must annually submit an emission statement for the source. The annual statement must be received by April 15 of each year and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8)(Emission Statement Operating Year).
- (b) 326 IAC 5-1 (Visible Emissions Limitations)
Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:
 - (1) Opacity shall not exceed an average of forty percent (40%) any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings) as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

- (a) 326 IAC 8-1-6 (BACT)
The volatile organic compounds(VOCs) potential emissions from each of the facilities is less than twenty-five(25) tons per year. Therefore, 326 IAC 8-1-6 does not apply.
- (b) 326 IAC 2-4.1-1 (New Source Toxic Control)
The new HVDPE system is not subject to this rule, neither is the entire source, because either one does not emit single HAP nor combined HAPs at major levels.

Conclusion

The installation of one (1) new high vacuum dual phase extraction (HVDPE) system and the operation of the existing soil and groundwater remedial system shall be subject to the conditions of the attached **Registration 019-18388-05191**.